

ABSTRACT OF THE DISCLOSURE

An improved method for the simultaneous  
sequence-specific identification of mRNAs in a mRNA  
population allows the visualization of nearly every mRNA  
expressed by a tissue as a distinct band on a gel whose  
intensity corresponds roughly to the concentration of the  
mRNA. In general, the method comprises the formation of  
cDNA using anchor primers to fix a 3'-endpoint, producing  
cloned inserts from the cDNA in a vector containing a  
bacteriophage-specific promoter for subsequent RNA  
synthesis, generating linearized fragments of the cloned  
inserts, preparing cRNA, transcribing cDNA from the cRNA  
using a set of primers, and performing PCR using a 3'-  
primer whose sequence is derived from the vector and a  
set of 5'-primers that is derived from the primers used  
for transcription of cDNA from cRNA. The method can  
identify changes in expression of mRNA associated with  
the administration of drugs or with physiological or  
pathological conditions.